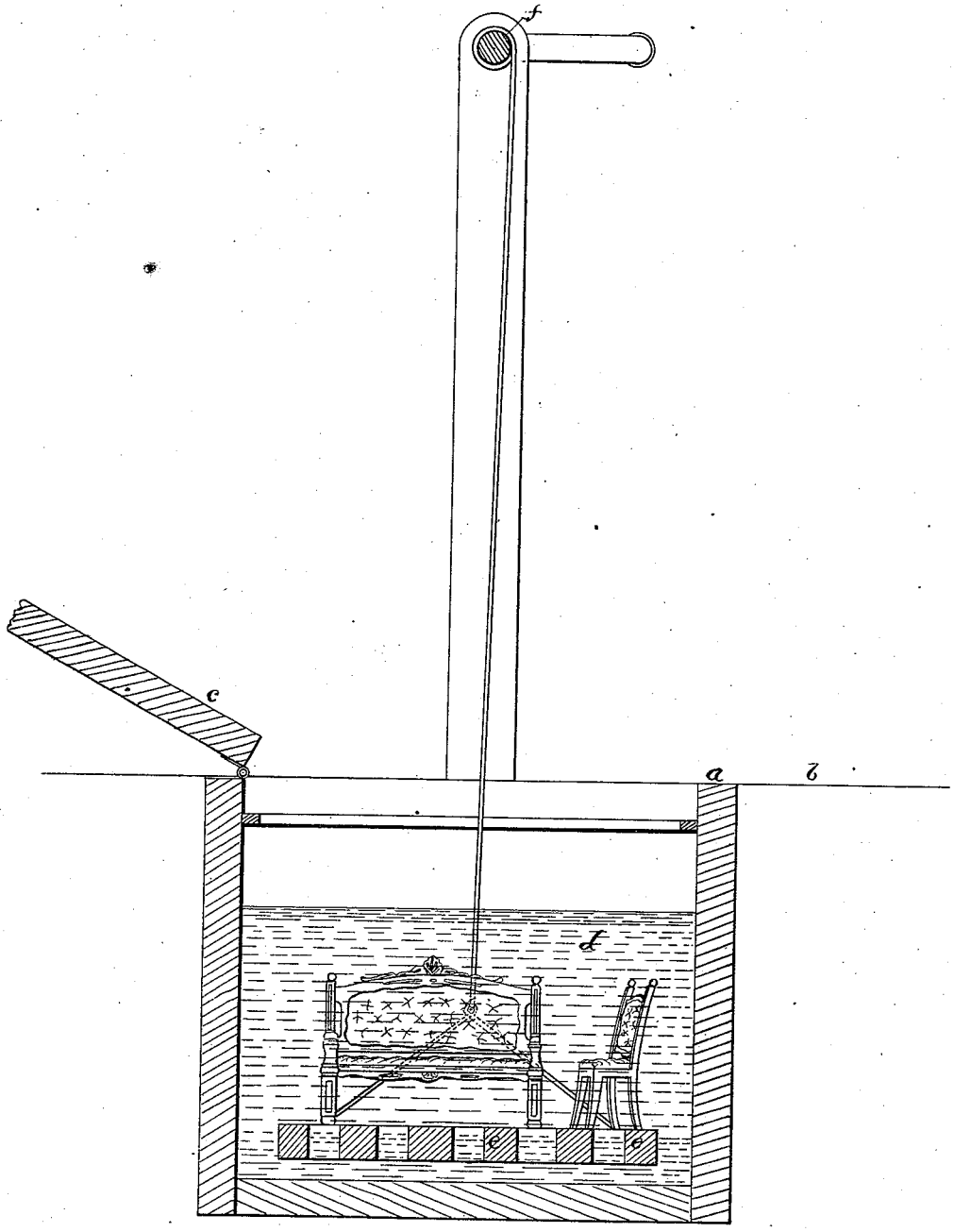
T. S. CHURCH.

Method of Killing Vermin.

No. 161,864. Patented April 13, 1875.



Witnesses.
L. H. Latimer.
Wm Pratt.

Inventor.
Titus S. Church
per Crosby & Gregory Attys.

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UNITED STATES PATENT OFFICE.

TITUS S. CHURCH, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND EDWIN R. FLINT, OF SAME PLACE.

IMPROVEMENT IN METHODS OF KILLING VERMIN.

Specification forming part of Letters Patent No. **161,864**, dated April 13, 1875; application filed February 3, 1875.

To all whom it may concern:

Be it known that I, TITUS S. CHURCH, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Process for Killing Vermin in Furniture, &c., of which the following is a specification:

My invention relates to a process for killing vermin in furniture, upholstery, carpets, &c.

The method which has been commonly practiced for killing moths, &c., in upholsterers' establishments, and often in private dwellings, has been to sprinkle the infested articles with benzine or naphtha. This practice has caused disastrous conflagrations, and is now prohibited by special clauses in insurance policies. Besides this, it is evident that, although the fumes of the fluid may kill breathing insects, the fluid itself will only destroy vitality in such of the eggs and larvæ and insects as may be touched therewith; consequently the dangerous practice of sprinkling results in lessening rather than in exterminating vermin where applied.

My process consists in the submersion in ordinary naphtha of commerce, or in light products of distillation from petroleum or coal oil, of articles which are vermin-infested, or which are spotted or coated with oil which it is desirable to remove, followed by the withdrawal of the articles from the fluid and exposure of them to the atmosphere for evaporation of any of the fluid remaining.

A practical and convenient manner of practicing my invention is as follows: In a light, cheap building, (which may be of corrugated iron,) located apart from other buildings, I place a tight tank, marked *a* in the drawing, preferably for convenience, so that its top is on a level with the floor-line *b*. This tank is to be of any size adapted for the submersion of the largest article to be treated; and if there are several tanks they may, for convenience, be of various sizes. Each tank may be provided with a close cover, *c*, to lessen evaporation of the naphtha *d;* and when the articles to be treated are large, or where many are to be submerged at once, a weighted platform or grid, *e*, may be provided, to which the articles to be treated are strapped or tied, to prevent them from floating as the grid is lowered into the fluid.

For operating the grid with its load, a windlass, *f*, may be provided, as shown in the drawing. The cover *c* should be kept closed as much of the time as possible. The time of immersion need not exceed ten minutes, and less time will suffice for articles easily permeated. By raising the grid somewhat slowly most of the fluid will drain into the tank from the articles which have been immersed, and the remainder will evaporate upon exposure to the atmosphere.

To render the fumes of the naphtha as little deleterious to the attendant as possible the building should be well open to the air.

The naphtha is not a solvent of glue or varnish, nor does it rust the springs of furniture, or the locks, or other metal-work; but as it is a solvent of oils and grease, submersion in it removes such fatty matter.

I claim—

The process of killing vermin in furniture, upholstery, or carpets, consisting in immersing the same in naphtha or other light products of distillation from petroleum or coal oil, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

TITUS S. CHURCH.

Witnesses:

G. W. GREGORY,

S. B. KIDDER.